

IN THE CLAIMS:

Please amend Claims 1, 7, 9, 10 and 11 as shown below. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) An image processing method of generating quantized output data having four-component output of cyan, magenta, yellow and black for an output device from image data having three-component input of cyan, magenta and yellow, the method comprising:

using a processor to perform the steps of:

inputting image data of a pixel of interest representing an image, the image data having n color components;

generating input data by adding error data, calculated from color difference data of pixels around the pixel of interest, to the image data;

extracting the high-order bit data from each of the three-component input of the generated input data;

deciding the quantized output data of the pixel of interest having output color components for an output device and output density data of the pixel of interest, by referring to a multidimensional an n-dimensional table based upon the extracted high-order bit data, in which wherein the multidimensional table stores a correspondence between the input data, and the output data and the output density data is stored, based upon the input data, and wherein the output density data has the three-component input of cyan, magenta and yellow, and represents a density of an output image reproduced by the output device based upon the quantized output data; and

calculating the color difference data of the pixel of interest by subtracting the decided output density data from the generated input data, [[; and]]

outputting the output data having output color components decided in the deciding step;

wherein the output color components include a cyan component and a magenta component;

[[and]] wherein the quantized output data included in the multidimensional n-dimensional table is decided such that a cyan dot and a magenta dot ~~the cyan component and the magenta component~~ are not simultaneously output by the output device in an area where a value density of the cyan component and a value density of the magenta component are low, and is decided so as to minimize the difference between the input data and the output density data in other areas.

2. and 3. (Canceled)

4. (Previously Presented) The method according to claim 1, wherein the output data having the output color components is decided based upon quality of printing required.

5. (Previously Presented) The method according to claim 1, wherein the output data having the output color components is decided based upon characteristics of printing media.

6. (Canceled)

7. (Currently Amended) An image processing apparatus for generating quantized output data having four-component output of cyan, magenta, yellow and black for an output device from image data having three-component input of cyan, magenta and yellow, the method comprising:

input means for inputting image data of a pixel of interest representing an image, the image data having n color components;

generating means for generating input data by adding error data, calculated from color difference data of pixels around the pixel of interest, to the image data;

extracting means for extracting high-order bit data from each of the three-component input of the generated input data;

deciding means for deciding the quantized output data of the pixel of interest having output color components for an output device and output density data of the pixel of interest, by referring to a multidimensional an n-dimensional table based upon the extracted high-order bit data, in which wherein the multidimensional table stores a correspondence between the input data, and the quantized output data and the output data density is stored, based upon the input data, and wherein the output density data has the three-component input of cyan, magenta and yellow, and represents a density of an output image reproduced by the output device based upon the quantized output data; and

calculating means for calculating the color difference data of the pixel of interest by subtracting the decided output density data from the generated input data[[]; and]]

~~outputting means for outputting the output data having output color components decided by said the deciding means;~~

~~wherein the output color components include a cyan component and a magenta component;~~

~~[[and]] wherein the quantized output data included in the multidimensional n-dimensional table is decided such that a cyan dot and a magenta dot the cyan component and the magenta component are not simultaneously output by the output device in an area where a value density of the cyan component and a value density of the magenta component are low, and is decided so as to minimize the difference between the input data and the output density data in other areas.~~

8. (Canceled)

9. (Currently Amended) A computer-readable recording medium encoding a program for causing a computer to perform an image processing method of generating quantized output data having four-component output of cyan, magenta, yellow and black for an output device from image data having three-component input of cyan, magenta and yellow, the method comprising the steps of:

inputting image data of a pixel of interest representing an image, the image data having n color components;

generating input data by adding error data, calculated from color difference data of pixels around the pixel of interest, to the image data;

extracting high-order bit data from each of the three-component input of the generated input data;

deciding the quantized output data of the pixel of interest having output for an output device and output density data of the pixel of interest, by referring to a multidimensional an n-dimensional table based upon the extracted high-order bit data, in which wherein the multidimensional table stores a correspondence between the input data, the quantized output data and the output density data is stored, based upon the input data, and wherein the output density data has the three-component input of cyan, magenta and yellow, and represents a density of an output image reproduced by the output device based upon the quantized output data; and

calculating the color difference data of the pixel of interest by subtracting the decided output density data from the input data; and

outputting the output data having output color components decided in the deciding step;

wherein the output color components include a cyan component and a magenta component;

[[and]] wherein the quantized output data included in the multidimensional n-dimensional table is decided such that a cyan dot and a magenta dot the cyan component and the magenta component are not simultaneously output by the output device in an area where a value density of the cyan component and a value density of the magenta component are low, and is decided so as to minimize the difference between the input data and the output density data in other areas.

10. (Currently Amended) The method according to claim 1, wherein the multidimensional ~~n-dimensional~~ table includes a first table in which a correspondence between the input data having the ~~n-color components~~ and the output data having the output color components, and a second table in which a correspondence between the input data having the ~~n-color components~~ and the output density data having the ~~n-color components~~.

11. (Currently Amended) The method according to claim 1, wherein the ~~n color~~ input three-components differs in a type from the output ~~color~~ four-components.